

**PATENT ABSTRACTS OF JAPAN**

(11)Publication number : 07-220735

(43)Date of publication of application : 18.08.1995

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(51)Int.Cl.	H01M 4/96
	C01B 31/02
	C04B 38/06
	D01F 9/16
	D21H 11/00
	H01M 4/88

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(21)Application number : 06-023466

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(22)Date of filing : 26.01.1994

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**(54) CARBON PAPER FOR FUEL CELL ELECTRODE AND MANUFACTURE THEREOF****(57)Abstract:**

PURPOSE: To display cell performance in a thin type further with excellence for use in an electrode plate for a fuel cell by setting thickness, porosity, mean hole diameter, opening gas hole capacity and specific resistance of carbon paper to within a specific value range.

CONSTITUTION: Carbon paper, constituted of carbon fiber and carbon, has a characteristic of 0.05 to 1.0mm thickness, 70 to 90% porosity, 10 to 30 $\mu$ m mean hole diameter, 2.0 to 4.0cc/g opening gas hole capacity and 0.1 $\Omega$ cm or less specific resistance. As a method of manufacturing this carbon paper, after cellulose system paper of 0.1 to 0.5 bulk specific gravity, 0.15 to 2.0mm thickness and 15 to 40 $\mu$ m mean hole diameter is primarily burned at about 1000 $^{\circ}$ C by a 10 $^{\circ}$ C/ time or less temperature rising speed, the paper is secondary burned at 1800 $^{\circ}$ C or more. In this paper, as an electrode plate, excellent cell performance having a high holding amount of electrolyte with necessary strength is displayed, and also capable of corresponding to miniaturizing a cell with a thin type.

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**LEGAL STATUS**

[Date of request for examination] 04.12.1997

[Date of sending the examiner's decision of rejection] 18.07.2000

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's